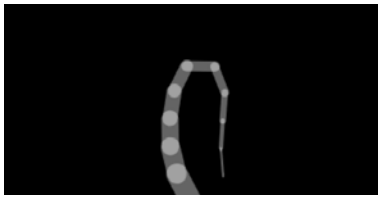
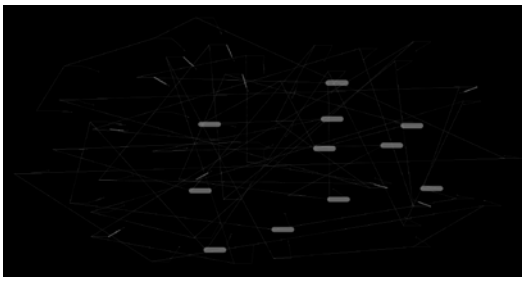
Weekly Report

Research

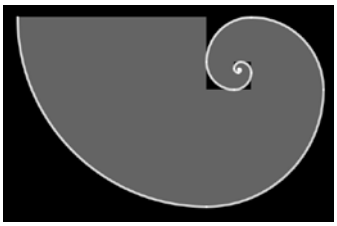
Last week I mainly focused on visual encoding exploration of rank item. Several chains or spirals were tested:

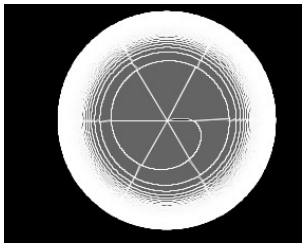
1. Chains, expected to present each rank with a chain knot, width encoding weight, head fixed at the projection anchor and tail pointing to the rank chain next year. But as it's shown below, it didn't work very well because of diversity of weight.

   original design 

   applied on real data 

2. Spirals, expected to present each rank with a fan ring, ring color encoding rank weight. Failed in rendering the real data, although data is relatively small size.

   Fibonacci spiral 

   Ln(1+x) spiral 

Conclusions & future work:

i) Looking for dynamic projection/layout

ii) Visual encoding design

iii) Industry data is partially fetched, need further cleaning

Miscellaneous

1. Refined textbook Chapter time-series data visualization

2. Paper revision of “An online visualization system for streaming log data of computing clusters”

Work to do

1. Group meeting, paper presentation: “Interactive Level-of-Detail Rendering of Large Graphs”
2. Future work listed above
3. Courseware PPT of chapter data visualization basis
4. Refined version of textbook chapter Tree & Graph
5. Paper refinement